Appln. No. 10/665,810 VIA EFS Title: LCD Driver Inventors: Peter H. XIAO et al. Atty Docket: UTC1.007US1 Filing Date: 09/19/2003

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1/8

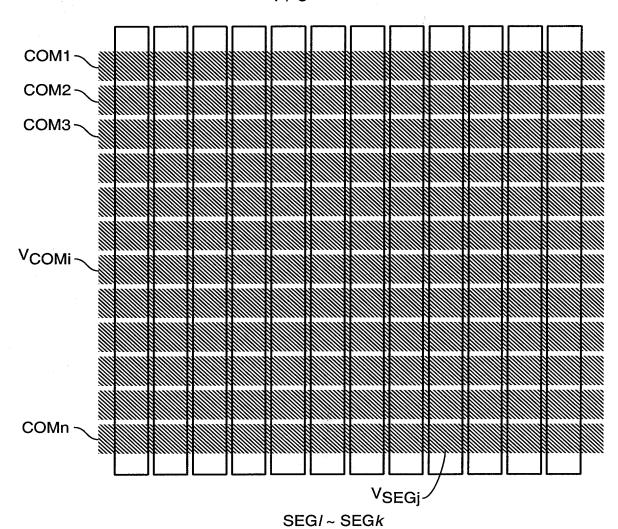
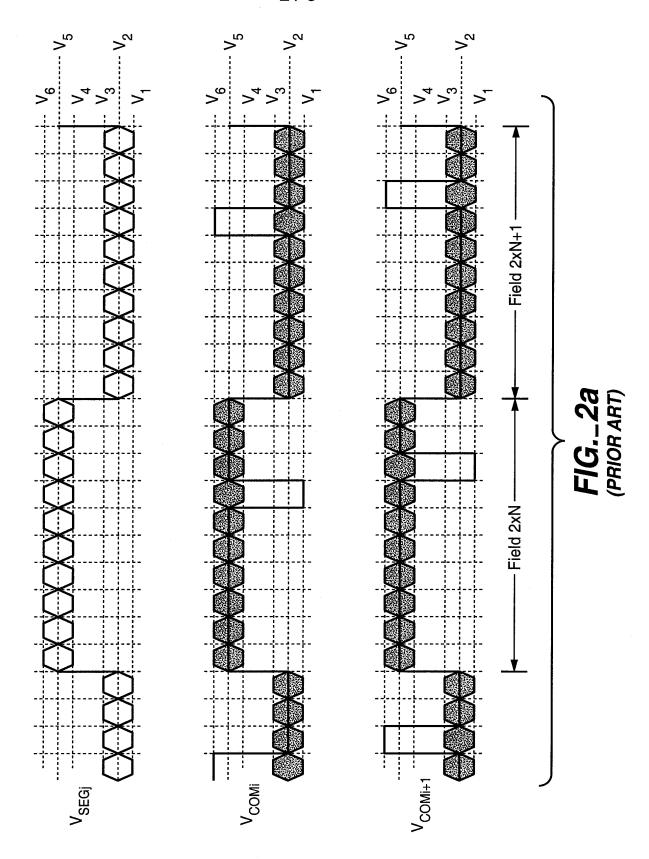


FIG.\_1

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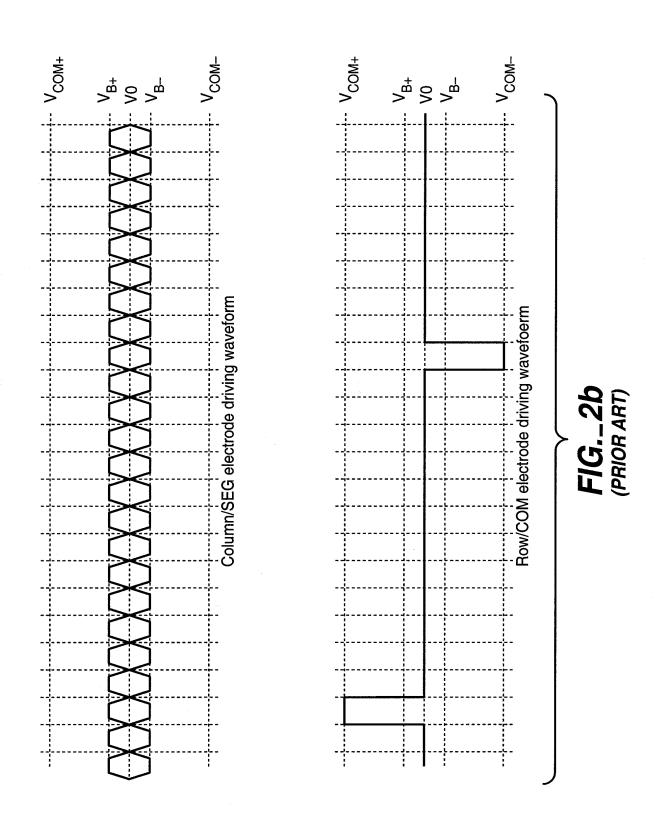


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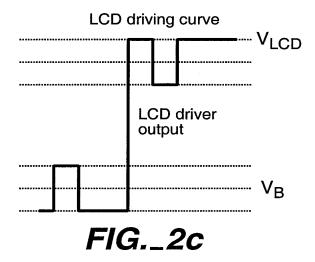
Appln. No. 10/665,810 VIA F Title: LCD Driver Inventors: Peter H. XIAO et al. Atty Docket: UTC1.007US1

VIA EFS

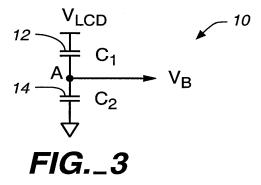
Filing Date: 09/19/2003

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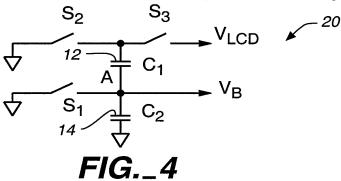
4/8



A capacitor bias ratio generation circuit



A capacitor bias ratio circuit with periodic refreshing



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5/8

## An alternative capacitor divider bias ratio generation circuit

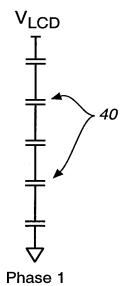


FIG.\_5a

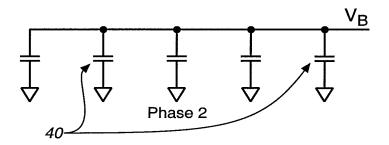
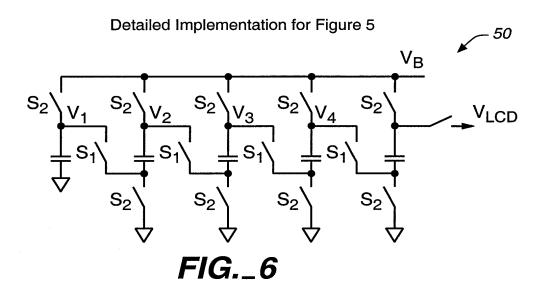


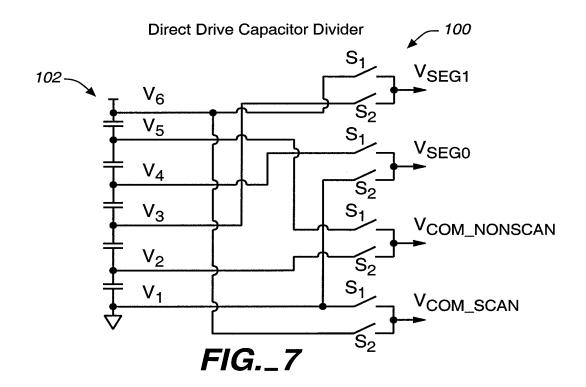
FIG.\_5b

Appln. No. 10/665,810 VIA E Title: LCD Driver Inventors: Peter H. XIAO et al. VIA EFS

Atty Docket: UTCI.007US1

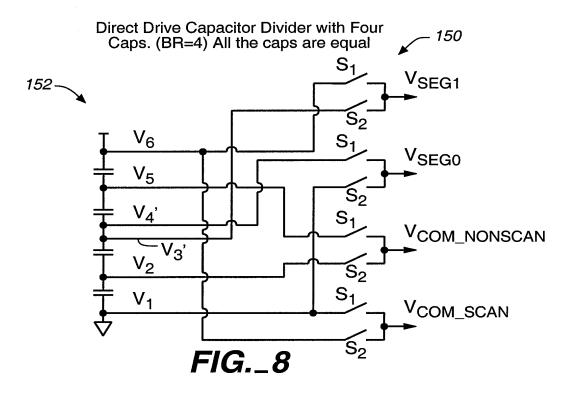
Filing Date: 09/19/2003 REPLACEMENT SHEET

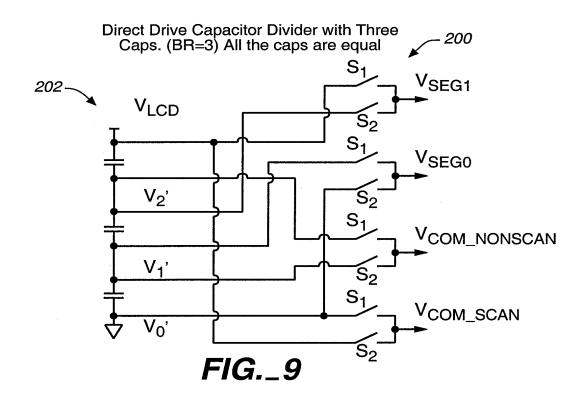




Appln. No. 10/665,810 VIA EFS Title: LCD Driver Inventors: Peter H. XIAO et al. Atty Docket: UTCI.007US1 Filing Date: 09/19/2003

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8/8

1/3 LCD driving waveform

			1/3 L0	CD dri	ving w	aveform	
	C1	C2					
R1							
R2						**************************************	
R3							
	$V_{LCD}$	)	·····i	<del>- 1</del>	<u>:</u>		
	$V_2$					<b></b>	C <sub>1</sub>
	$V_1$		<u> </u>		<u> </u>	******************	'
	$V_0$						
		·	1-row	t	ina tim	20	
	V <sub>LCD</sub>		1-1044	Scarii	iirig iiri	10	
	$V_{2}$						
	V <sub>2</sub> V <sub>1</sub> '						$C_2$
	V <sub>0</sub> '	************	*******************				
	•0						
	V <sub>LCD</sub>			***************************************			
	V <sub>2</sub> '		L			· · · · · · · · · · · · · · · · · · ·	
	V <sub>1</sub> ,						$R_1$
	V <sub>0</sub> '	L			***************		
	V <sub>LCD</sub>						
	V <sub>2</sub> '						
	V <sub>2</sub> V <sub>1</sub> '						$R_2$
	$V_0$	***********				************	
	V <sub>LCD</sub>	************		*************			
	V <sub>2</sub> '	Γ	T	<b>—</b>		J	_
	V <sub>1</sub> '						H <sub>3</sub>
	$V_0$	***************************************	***************************************			••••••	

FIG.\_10